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|-----------------------------|-----------------------------|------------------------|---|
| <b>U4B SAFETY CHECKLIST</b> |                             |                        | BROOKHAVEN NATIONAL LABORATORY<br>NATIONAL SYNCHROTRON LIGHT SOURCE |
| <b>Rev: C</b>               | <b>Effective: 5/24/2010</b> | <b>Page 1 of 1</b>     | Number: LS-SCL- 0070  |
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**A. FRONT-END VACUUM**

With mask closed, or no beam in the machine, pressure must be  $2.0 \times 10^{-9}$  or less.

**B. BEAMLINE ISOLATION VALVES**

Beamline isolation valves V1B, V2B and V3B must be unsealed and in the open position. In addition, the manual U4B valve mask located at the front end must be open.

**NOTE: U4A Operation Only:** In principle, U4A should be able to operate independently if the manual U4B valve mask is closed. However, currently, do to a problem with the controls, V1B, V2B and V3B must be open in order for U4A to operate, regardless of the position of the U4B manual mask.

**D. NUMBERED CHECKPOINTS**

The following checkpoints start at the Front End. The purpose of the list is to ensure that all shielding and exclusion zones are in place and secured. Refer to U4B Beamline Shielding Schematic SLS-05.04-009-05 Rev. A.

- 1. Bremsstrahlung Shielding (BS #1) banded and secured as per photo.
- 2. Exclusion Zone (EZ # 1) in place and secure.
- 3. Bremsstrahlung Shielding (BS #2) banded and secured as per photo.
- 4. Exclusion Zone (EZ # 2) in place and secure.
- 5. Bremsstrahlung Shielding (BS #3) banded and secured as per photo.
- 6. Exclusion Zone (EZ # 3) in place and secure.
- 7. Bremsstrahlung Shielding (BS #4) banded and secured as per photo.

OPCO / Beamline Rep.: \_\_\_\_\_ Date: \_\_\_\_\_